UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/578,132	05/01/2006	Robert Chassagnon	5460-72PUS	5229

27799 7590 12/21/2010

COHEN, PONTANI, LIEBERMAN & PAVANE LLP
551 FIFTH AVENUE
SUITE 1210
NEW YORK, NY 10176

EXAMINER	
MAKI, STEVEN D	
ART UNIT	PAPER NUMBER
1747	

MAIL DATE	DELIVERY MODE
12/21/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/578,132	CHASSAGNON ET AL.	
	Examiner	Art Unit	
	Steven D. Maki	1747	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 October 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6,7 and 9-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6,7 and 9-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1) The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2) Claims 1-4, 6-7 and 9-11 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claim 1, the subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention (i.e the new matter) is the subject matter of "the at least one base mix is free of an unsaturated C_{12}-C_{22} fatty acid ester" without the subject matter of the at least one base mix comprising aromatic oil. The table in the specification shows that composition C-2 of the covering mix - but not the composition C-1 of the base mix - comprises glycerol trioleate (triester of fatty acid). The table in the specification *additionally* shows that the composition C-1 of the base mix comprises aromatic oil. Moreover, the specification states: "Composition C-2 has the characteristic of not comprising any aromatic oil, the latter being totally replaced (in an amount of 33 phr) by a fatty acid ester (glycerol trioleate) and an associated hydrocarbon resin". (page 9 lines 28-30). Therefore, the specification supports and reasonably conveys using a base mix comprising aromatic oil and being free of unsaturated C_{12}-C_{22} fatty acid ester **and** the covering mix comprising

unsaturated C_{12}-C_{22} fatty acid ester. However, the specification fails to reasonably convey eliminating both unsaturated C_{12}-C_{22} fatty acid ester and aromatic oil from the base mix and thereby fails to support "the at least one base mix is free of an unsaturated C_{12}-C_{22} fatty acid ester" per se.

In order to overcome the above 112 first paragraph rejection, the following change is suggested: In claim 1 last line, after "the at least one base mix is free of an unsaturated C_{12}-C_{22} fatty acid ester" insert --and the at least one base mix comprises aromatic oil--.

3) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4) **Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 701 (JP 2000-153701) in view of at least one of Japan 935 (JP 63-039935), Japan 311 (JP 2002-275311) and Hausmann (US 5,252,649).**

Japan 701 discloses a passenger car tire having a tread 1 comprising a major groove 2 separating tread elements (Figure 1). In other words, Figure 1 of Japan 701 illustrates one groove. Japan 701 is silent as to using a plurality of grooves. However, it would have been obvious to one of ordinary skill in the art to provide Japan 701's tread with a plurality of cutouts in the form of grooves defining a plurality of tread elements since it is taken as well known / conventional per se in the tire tread art to provide the tread of a pneumatic passenger car tire with circumferential grooves and

lateral grooves and blocks defined by those grooves in order to improve wet traction of the tire. The tread 1 (base mix) comprises crude rubber (natural rubber), styrene butadiene rubber, polybutadiene rubber, polyisoprene rubber or a mixture thereof (paragraph 5). In other words, the **tread 1 (base mix) is devoid of butyl rubber**. Japan 701 teaches preventing belt failure by covering at least the groove bottom with a covering rubber layer 3. The **covering rubber layer 3 (covering mix) comprises isobutylene isoprene rubber (butyl rubber)**. See paragraph 5 of machine translation. Japan 701 discloses covering only the groove bottom with the covering rubber layer. See Figure 1 and Example 1 (paragraph 9 of machine translation). Japan 701 also teaches covering all of the groove bottom and groove sidewalls with the covering rubber layer (paragraph 12 of machine translation). Japan 701 does not recite using unsaturated C12-C22 fatty acid ester type in the covering rubber layer (covering mix).

As to claim 12, it would have been obvious to one of ordinary skill in the art to include unsaturated C_{12}-C_{22} fatty acid ester type such as glycerol trioleate in the covering rubber layer 3 (covering mix) of Japan 701's pneumatic passenger car tire since (1) Japan 935 suggests using 1-150 parts (or 5-30 parts) plasticiser in a tire tread for use on ice and snow because it *prevents hardening of the tread due to decreased Tg to improve running performance on ice and snow* wherein (a) the tire tread may comprise rubber such as **butyl rubber** and (b) the plasticiser is a glycercine ester of formula I (page 1 lower left) where R1, R2, R3 = H or 2-22C acryl (abstracts, formula at page 1 lower left, ranges of "1-150" and "5-30" on page 2 lower left, invention examples 1-7 in Table 1 and invention examples 8-14 in Table 2), (2) Japan 311 teaches

formulating a tire tread such that it comprises 100 parts rubber such as **butyl rubber**, 10-130 parts silica, silane coupling agent and 0.2-10 parts organic compound (plasticiser) such as fatty acid ester so that *the composition is excellent in workability, dimensional stability and safety and the tire is excellent in uniformity* (abstract, paragraphs 1, 43-44, 50-70, 83 of machine translation) and/or (3) Hausmann suggests including 2-35 parts plasticizer comprising fatty acid triglyceride such as triglyceride of oleic acid (glycerol trioleate) in the tread which may comprise **butyl rubber** to *improve traction on ice and snow as well as dry and wet roads* (abstract, col. 3 lines 38-48). Hence, at least one of Japan 935, Japan 311 and Hausmann provide ample motivation (e.g. improved workability or improved traction) to use the claimed unsaturated C_{12}-C_{22} fatty acid ester type ("plasticiser") in Japan 701's tread. It is noted that Japan 701's covering layer 3 contacts the road when the bottom and sidewalls of the groove are covered. The applied secondary prior art to at least one of Japan 935, Japan 311 and Hausmann provides a reasonable expectation of success since each of Japan 935, Japan 311 and Hausmann teach using both rubber such as butyl rubber and fatty acid ester (plasticiser) in a tire tread.

With respect to "at least one base mix opens on to the contact face either before the new tire is used or after wear is up to 10% of the height Hr" (claim 1), Japan 701 satisfies this limitation because Japan 701 teaches covering the sidewalls and bottom of the groove instead of covering the tread surface.

With respect to the limitation regarding at least equal to 30%, it would have been obvious to one of ordinary skill in the art to cover Japan 701's groove with the covering

rubber layer comprising isobutylene isoprene rubber (butyl rubber) such that the covering layer (butyl rubber layer) extends over a height Hr at least equal to 30% of the height H of the face of the tread pattern elements since Japan 701 teaches covering both the bottom and sidewalls of the groove 2 with the butyl rubber covering layer to prevent moisture from moving from the groove to the belt to prevent belt failure. It is noted again that Japan 701's covering layer 3 contacts the road when the groove sidewalls and bottom are covered.

Hence, Japan 701 discloses a covering mix for the groove of a **tire tread**. Each of Japan 935, Japan 311 and Hausmann teach adding a fatty acid ester to a **tire tread**. Japan 935 motivates one of ordinary skill in the art to add fatty acid ester to the rubber composition of Japan 701's tire tread, which includes both a covering mix and base mix, to improve running performance on ice and snow. Japan 311 motivates one of ordinary skill in the art to add fatty acid ester to the rubber composition of Japan 701's tire tread, which includes both a covering mix and base mix, so that the rubber composition is excellent in workability and uniformity. Hausmann motivates one of ordinary skill in the art to add fatty acid ester to the rubber composition of Japan 701's tire tread, which includes both a covering mix and base mix, to improve traction on ice and snow as well as dry and wet roads. No unexpected results over the applied prior art have been shown. The claimed tire has not been compared with Japan 701's tire. One of ordinary skill in the art would readily appreciate that the teaching to add fatty acid ester to rubber composition as per Japan 935, Japan 311 or Hausmann is applicable to the covering mix of Japan 701's tread since the rubber composition of Japan 935, Japan 311 or

Hausmann, like the covering mix rubber composition of Japan 701 is for the ground contacting portion of a tire tread. Moreover, Japan 935, Japan 311 or Hausmann disclose adding the fatty acid ester to the composition of **the entire tire tread** and **the entire tread of Japan 701 comprises the covering mix 3 and the base mix 1**.

Furthermore, Japan 701 fairly teaches a tread comprising the combination of a "covering mix" 3 comprising butyl rubber and a "base mix" 1 which is devoid of butyl rubber; and the secondary art to Japan 935, Japan 311 or Hausman render obvious adding an unsaturated C_{12}-C_{22} fatty acid ester type to a covering mix which is part of "the tread". Japan 935, Japan 311 and Hausman are not limited to using an unsaturated C_{12}-C_{22} fatty acid ester type with butyl rubber. Japan 935, Japan 311 and Hausmann establish a reasonable expectation of success for using a plasticiser of an unsaturated C_{12}-C_{22} fatty acid ester type when butyl rubber is used (as in the "covering mix" in Japan 701), but do not require using butyl rubber.

Allowable Subject Matter

5) **Claims 1-4, 6-7 and 9-11 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112 set forth in this Office action.** In order to overcome the 112 first paragraph rejection, the following change is suggested: In claim 1 last line, after "the at least one base mix is free of an unsaturated C_{12}-C_{22} fatty acid ester" insert --and the at least one base mix comprises aromatic oil--.

Remarks

6) Applicant's arguments with respect to claims 1-4, 6-7 and 9-11 have been considered but are moot in view of the new ground(s) of rejection.

With respect to claim 12, applicant's arguments filed 9-21-10 have been fully considered but they are not persuasive.

Applicant's arguments regarding claim 12 are not persuasive since (1) Japan 701 fairly teaches a tread comprising the combination of a "covering mix" 3 comprising butyl rubber and a "base mix" 1 which is devoid of butyl rubber and (2) the secondary art to Japan 935, Japan 311 or Hausman render obvious adding an unsaturated C_{12}-C_{22} fatty acid ester type to a covering mix which is part of "the tread". Japan 935, Japan 311 and Hausman are not limited to using an unsaturated C_{12}-C_{22} fatty acid ester type with butyl rubber. Japan 935, Japan 311 and Hausmann establish a reasonable expectation of success for using a plasticiser of an unsaturated C_{12}-C_{22} fatty acid ester type when butyl rubber is used (as in the "covering mix" in Japan 701), but do not require using butyl rubber.

7) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Steven D. Maki/
Primary Examiner, Art Unit 1791

Steven D. Maki
December 18, 2010